

In the Specification:

Amend page 11, lines 22-34 as follows:

V. Preheating radiation beam embodiment

With reference now to FIG. 1C, in another example embodiment, apparatus 8 includes a preheating optical relay system 140 having a preheating radiation source 142 and a relay lens 143 arranged along an optical axis A2. Preheating radiation source 142 is one that emits radiation 147 that is applied to relay lens ~~[[145]]~~ **143** with preheating radiation beam 150 therefrom used to preheat the substrate just before it is heated by the annealing radiation beam. Radiation 147 has a wavelength that is readily (substantially) absorbed by 100 μ m or less of silicon. In an example embodiment, preheating radiation source 142 is a laser diode array that emits preheating radiation 147 having a wavelength of 0.8 μ m (800nm) or 0.78 μ m (780nm). An example embodiment of relay lens 143 is described below. Preheating radiation source 142 and relay lens 143 are operably connected to controller 32, along with monitors M1 and M2, and stage driver 29 shown in FIG. 1A, and not shown in FIG. 1C for ease of illustration.

Amend page 18, lines 7-14 as follows:

With reference again to FIGS. 8A and 8B, relay lens 143 consists of two imaging sub-relays R-1 and R-2 in series with a common intermediate image plane IM. Sub-relay R1 is an anamorphic relay employing mainly cylindrical lens elements with substantially different powers in the Y-Z and X-Z planes, while subrelay R-2 is a conventional relay employing spherical elements and having a demagnification ratio of 1:6. The anamorphic relay R-1 has a 1:1 magnification ratio in the Y-Z plane, and a 1:10 demagnification ratio in the X-Z plane. The relay lens 143 is telecentric at the object plane OP and image focal plane ~~[[OP]]~~ **IP**.

Amend page 22, lines 28-34 as follows:

FIG. 11 is a plot that shows the variation of reflectivity R (%) with incidence

angle θ_{150} (degrees) of bare silicon along with example field oxide films (300nm, 400nm and 500nm) that are typically present on a silicon substrate ready for junction activation. The plot of FIG. 11 assumes the radiation incident on the substrate has a wavelength of 800nm and is P-polarized. As can be seen from the plot, for these films the optimum operating point corresponds to an incident angle θ of about 55° , which is the angle where the reflectivities are all equal to about 14%.